46731

CORRES. CONTROL
INCOMING LTR NO.

24483 RF 94

DUE DATE 12-23-94

ACTION STIGER

DIST.	LTR	ENC
BURLINGAME, A.H.		
BUSBY, W.S.	X	X
CARNIVAL, G.J.		
CORDOVA, R.C.		
DAVIS, J.G.		
FENN, T.M.		
FERRERA, D.W.		
FRAY, R.E.		
FULTON, D.L.		
GEIS, J.A.		
GLOVER, W.S.		
GOLAN, P.M.		
HANNI, B.J.		
HEALY, T.J.		
HEDAHL, T.G.		
HILBIG, J.G.		
HOLLOWELL, L.J.	X	X
HUTCHINS, N.M.		
JACKSON, D.T.		
KELL, R.E.		
KUESTER, A.W.		
MARX, G.E.		
McCART, D.		
McDONALD, M.M.		
McGOVERN, L.J.		
McKENNA, F.G.		
PAUKERT, J.G.		
PIZZUTO, V.M.		
POTTER, G.L.		
SATTERWHITE, D.G.		
SCHRADER, D.C.		
SCHUBERT, A.L.		
SCHWARTZ, J.K.		
SETLOCK, G.H.		
STIGER, S.G.	X	X
VOORHEIS, G.M.		
CORRES. CONTROL	X	X
ADMN RECORD/080	X	2
PATS/T130G	X	X

Reviewed for Addressee
Corres. Control RFP

12-13-94 DATE BY

Ref Ltr. #

DOE ORDER # 5400.1

RF-46522 (Rev.9/94)

States Government **Department of Energy**

Memorandum

Rocky Flats Field Office

DEC 13 2 11 PM '94

EG&G ROCKY FLATS PLANT CORRESPONDENCE CONTROL

DEC 1 3 1994

ER:SRG:12393

Operable Unit No. 2 Subsurface Interim Measure/Interim Remedial Action at Mound and 903 Pad Areas

Sue G. Stiger, Program Director
Environmental Restoration Project
EG&G Rocky Flats, Inc.

As discussed with your Operable Unit (OU) No. 2 staff, a more technically defensible approach should be taken for the OU 2 Subsurface Interim Measures/Interim Remedial Action (IM/IRA) efforts at the Mound and 903 Pad area. The Environmental Protection Agency (EPA) guidance recommends that certain Soil Vapor Extraction screening steps occur prior to going to full scale operations, as was done at test site one, under the Subsurface IM/IRA.

The EPA guidance (EPA/600/K-92/003; July 1992) recommends acquisition of In Situ vapor pressure, conducting column tests, mathematical modeling, and if warranted, field air permeability tests prior to full scale operations. These activities should be planned for the Mound and 903 Pad locations, as a screening for full scale operations. Attached is a summary of the screening process. My staff has also provided the EPA guidance to your staff.

Based upon the operational information obtained from test site 1, there is a good chance that full scale operations at the Mound and 903 Pad area can be screened out. If screened out, we would have an excellent case for a proposal to close out the Subsurface IM/IRA.

You are requested to prepare a plan that incorporates the above screening activities, for submittal to EPA and the Colorado Department of Public Health and Environment for approval. We will propose the screening tests as the test site 2 and 3, under the Subsurface IM/IRA. If the process screens out full scale operations, we would then have the basis for closing out the Subsurface IM/IRA. Please contact us by December 23, 1994, with a schedule for this effort.

If you have any questions or comments, please call Scott Grace at extension 7199.

Jessie Roberson
Assistant Manager for
Environmental Restoration

Attachment

DOCUMENT CLASSIFICATION REVIEW WAIVER PER CLASSIFICATION OFFICE

cc w/ Attachment:
C. Gesalman, EM-453, HQ
J. Roberson, AMER, RFFO
S. Grace, ER, RFFO
E. Dillé, SAIC
W. Busby, EG&G

SCREENING FACTORS FOR SVE

from EPA/600/K-92/003; July 1992

Vapor Pressure:

If vapor pressure is less than 0.5 mm Hg, with sandy or other soils, screen out.

If vapor pressure greater than 0.5 mm Hg and less than 10 mm Hg, with sandy or other soils, run remedy screening column test.

If vapor pressure greater than 10 mm Hg, with non-sandy soils, commence air permeability testing.

Screening Column Test: Used to establish if performance goals can be met. Gives order of magnitude information on the partition coefficients needed for mathematical modeling. Order of magnitude air permeability measurements may be obtained with "undisturbed" samples.

If less than 80% reduction in soil concentrations, screen out.

If cleanup target met, and estimated air permeability is less than $10E^{-6}$ cm^2, commence air permeability tests.

If cleanup targets are met and estimated air permeability greater than $10E^{-6}$ cm^2, go to evaluation of alternatives.

Air Permeability Tests: Used to check implementability of SVE. Measures the radius of influence in the vicinity of the testing point. Provides most accurate air permeability measurements.

If air permeability less than $10E^{-10}$ cm^2, reevaluate or screen out.

If air permeability greater than $10E^{-10}$ cm^2 and less than $10E^{-10}$ cm^2, commence mathematical modeling.

If air permeability greater than $10E^{-6}$ cm^2, commence evaluation of alternatives.

Mathematical Modeling: Provides order of magnitude estimates of SVE cleanup times. Provides sensitivity analyses for critical variables such as air permeability, radius of influence, partition coefficients, and vacuum applied.

If time to remediate greater than 2 years, re-evaluate or screen out.